PEB

NEWSLETTER

1-98

NEWSLETTER CONTENTS

Senior Member's Comments

The Fleet Engineering Readiness Process (FERP) has completed its second year. The theme of this newsletter is to provide the Fleet a "State of the FERP" report. The enclosed articles were written with that bias. Also, provided at the end of "The Process" section is the raw data from our 12 month running summary results.

The FERP overall is giving the Fleet results comparable to the old process. The high point is that execution and performance of drills at ECERT is superior to the old process. The down side is that material condition has not maintained the same level of effectiveness. Another point that became obvious during our process review was that the CART is the corner stone of the process. No ship that had an effective CART had anything but good LOAs (either ISIC or PEB) and ECERTs.

The articles in the Newsletter will reinforce these points. As always, comments/recommendations are welcomed.

William J. Laz

Published triannually by the Senior Member of the Atlantic Fleet Propulsion Examining Board as a means to address changes, common problems, and often asked questions from staffs or ships concerning the engineering readiness and certification process. Points of contact for the submission of ideas or articles are: CDR Tom Holman, Managing Editor, and LCDR Ken Frack, Editor; both at 757-836-0121/0120 or DSN 836-0121/0120, Fax: 757-836-5319.

MANAGEMENT

ELECTRICAL SAFETY

By LCDR Jim Hughes, LANTFLT PEB.

During 1997, 21 percent of LANTFLT Electrical Safety Programs were assessed as "Not Effective" (it was 19 percent in 1996). Common discrepancies making programs not effective are listed below:

- Violating safety procedures. Personnel working on live electrical equipment during an assessment. This commonly happens when ships are trying to repair an emergent casualty to continue with an assessment. It is vital that the senior leadership of Engineering Departments do not "rush" their personnel to get a job done. Remember we (engineers) DO NOT get paid enough to do our jobs in an unsafe manner.
- An accumulation of safety violations. This includes but is not limited to, exposed wiring in main spaces, overfusing, mislabeled fuse panels, and control consoles with fasteners loose or missing.
- Not adhering to 5100.19C or NSTM 300. What space assessors find most often is test equipment that has not been safety checked (if it is borrowed you are still responsible for it), portable tools checked out overnight without proper documentation, and electrical/electronic equipment past due for safety check. (If it had been checked at all).

Bottom line: If you do something unsafe your program will be assessed as not effective. Adherence to 5100.19C and NSTM 300 will keep prudent engineers out of trouble.

MANAGEMENT

HEAT STRESS

By LT Richard Frey, LANTFLT PEB

During 1997, 30 percent of LANTFLT Heat Stress Programs were assessed as "Not Effective" (it was 18 percent in 1996). Common discrepancies making programs not effective are listed below:

- Personnel not receiving indoctrination training.
- Numerous personnel overdue for annual training.
- Weak level of knowledge among supervisory personnel, EOOWs and heat stress monitors. Specifically:
  - Not knowing when heat stress surveys are required to be taken.
  - Not knowing how to read and interpret the results of heat stress surveys.
  - Not knowing what comparisons to make in order to determine if the survey was accurately performed.
  - Not recognizing erroneous results.
  - Not knowing the symptoms and first aid for heat stress and heat stroke.
- Personal errors while conducting heat stress surveys.
- Surveys not conducted in non-engineering spaces, such as the scullery, galley, and laundry.

Start preparing your ship now for summer's hotter weather by correcting steam leaks, repairing or replacing damaged and deteriorated lagging, and cleaning ventilation filters. The NFTI is an excellent tool for determining where hot spots exist within your engineering spaces and where additional lagging may be required.

Each ship must also have a method in place to determine when heat stress surveys are required based on outside weather conditions. A survey must be conducted if the outside dry-bulb temperature exceeds 95 degrees F and/or the outside wet-bulb temperature exceeds 81 degrees F.

A lack of a "quality" review of heat stress surveys can be corrected by developing a "cheat sheet" for your EOOWs so that they do not have to rely upon their memory when reviewing survey results. At a minimum, the EOOWs should check the following items for each survey:

- Hanging dry-bulb and WBGT meter dry-bulb readings must be within 5 degrees F.
- Calculated WBGT Index and WBGT Index from the PHEL curves (or the Model 960) must be within 0.2 degrees F.
- Wet-bulb temperatures must be less than or equal to dry-bulb temperatures.

- Globe temperatures must be greater than or equal to dry-bulb temperatures.
- The WBGT index must be greater than wet-bulb temperatures and less than globe temperatures.

To provide better consistency among surveys, some ships have painted footprints on the deckplates where the heat stress monitor should stand when conducting surveys.

Quality training is the key to a successful Heat Stress Program. Your personnel must be trained on the do's and don'ts of working in a heat stress environment (see OPNAVINST 5100.19C para B0204.d.6.f). All hands must be trained to recognize the symptoms of heat stress and heat stroke and should know the first aid required for these casualties. Additionally, the Wardroom and CPO mess must be trained on this program, and on how to recognize and correct potential heat stress problems.

Get the ship's Safety Officer involved in the program. He/she should have a copy of the PQS for heat stress monitors, and should periodically review the qualification process. The heat stress monitor PQS is NAVEDTRA 43460-4A, NSN 0501-LP-218-7700, and the standard answer book is NAVEDTRA 43460-4A/SAB, NSN 0501-LP-218-7800.

Engineer Officers and Medical Department personnel need to take a hard look at their Heat Stress programs The program checklists provided by ETG and OPNAVINST 5100.19C are a good way to determine where weaknesses exist in your program.

MANAGEMENT

HEARING CONSERVATION

By LT Richard Frey, LANTFLT PEB

During 1997, 24 percent of LANTFLT Hearing Conservation Programs were assessed as "Not Effective" (it was 23 percent in 1996). The most common discrepancy leading to an assessment of not effective was personnel not wearing hearing protection in noise hazard areas. This problem can be easily corrected by training and strict enforcement.

Other factors that have contributed to less than effective assessments included:

- Personnel overdue for annual audiograms or follow-up audiograms.
- Incomplete documentation in medical records.
- Hearing protection signs not posted in noise hazard areas.
- Ship overdue for an Industrial Hygiene Noise Hazard Survey.

OPNAVINST 5100.19C provides an excellent checklist to assess your program. ETG also has an excellent checklist. Look at these checklists now and determine if your program is effective or not, and train your crew that wearing hearing protection is not an option.

MANAGEMENT

LUBE OIL QUALITY MANAGEMENT

By LT Samuel Overmyer, LANTFLT PEB

During 1997, 39 percent of LANTFLT Lube Oil Quality Management Programs were assessed as "Not Effective" (it was 21 percent in 1996). Three of the top reasons for a not effective assessment were:

- Lack of accountability. Logs must reflect LO usage when you transfer LO from storage tanks to sumps, or from sumps to settling/contaminated tanks. Also, you should list reasons for significant increases or decreases in main propulsion sump levels in the remarks section of the LOQM log.
- Not adhering to the requirements of the JOAP program. (See the article below by LT Frey describing how to administer an effective JOAP program.)
- Low level of knowledge on the deckplates, improper sampling procedures, and using out of date or incorrect MRCs. Personnel must use the correct MRC when drawing samples rather than relying on memory. Make sure that your watchstanders use the 2451 R-1W MRC (vice the 2000 R-1 MRC) when drawing samples on CRP/CPP oil.

MANAGEMENT

JOINT OIL ANALYSIS PROGRAM (JOAP)

By LT Richard Frey, LANTFLT PEB

Recently, several ships have been assessed as having not effective LOQM programs primarily due to a poorly managed JOAP program. As stated in reference NSTM 262, the purpose of JOAP is to detect changes in the condition of used oil, detect unusual wear, and to predict impending equipment failures. What this means to a ship with a good JOAP program in place is improved equipment operational safety and reliability and decreased maintenance efforts through the performance of conditioned based maintenance.

The common theme that drives JOAP to be not effective is lack of supervisory review. The major deficiencies we have seen can be broken down into three areas:

- Samples not being taken as required by PMS
- JOAP results missing
- Recommendations from the JOAP lab not being followed

You can turn around a weak JOAP program by following a few basic guidelines. First, read Section 4 NSTM 262. In a few pages, it quickly and easily explains the program, the ship's responsibilities, how to take samples, and where to send them. Next, review your PMS to determine what equipment needs to be sampled and how often it must be sampled. Finally, ensure that you include a Form 2026 with each sample sent to the JOAP lab.

As soon as test results are received, the Engineer Officer should immediately review them and forward them to the LOQM program manager for further action and filing. Each result from the JOAP lab will include a recommendation. The ship is responsible for following those recommendations. Each ship needs to develop a method for tracking the recommendations and ensuring that they are accomplished.

The guidance followed by the JOAP labs for forwarding results to ships is as follows:

A. An immediate response (within 72 hours of obtaining the results in the lab) will be sent to the ship via message or phone call if the sample falls under one of the following categories:
   - The sample is from a diesel engine greater than 400 HP.
   - The sample is from a storage or service tank.
   - The results of any sample are unsatisfactory.

B. Otherwise, a monthly report is mailed to each ship listing the results of all samples received and processed by the JOAP lab within the past 30 days.

Ships often tell us that results were never received from the JOAP lab. If for any reason you are missing results or need results before the monthly report is mailed from the lab, then just call or visit the lab. The lab can provide you with the latest results they have as well as a history for each piece of equipment required to be sampled under the JOAP program for your ship.

While not required by PMS, it is a good engineering practice to obtain a sample of new oil (from a tank truck, barrels or shipyard) and send it to the JOAP lab for analysis. This can prevent you from putting "bad" oil in your storage tanks, and can save the ship valuable OPTAR dollars. If the oil is being onloaded from barrels, then only one sample from each individual batch number is required. According to GSMC Barker of the JOAP lab at SIMA Norfolk, the lab at SIMA will test new oil for ships. If you are willing to wait at the lab, you can have the results within 30 minutes.

The JOAP lab at SIMA Norfolk will move to NAS Norfolk in the spring. Keep your eyes open for the message with the details of this move and ensure that your Oil Lab personnel are informed of where to send samples. The location of all JOAP labs is listed in NSTM 262..

MANAGEMENT

DIESEL JACKET WATER TEST AND TREATMENT

By LT John M. Kubera, LANTFLT PEB

During 1997, 16 percent of LANTFLT Diesel Engine Jacket Water Test and Treatment Programs were assessed as "Not Effective" (it was 11 percent in 1996). Numerous discrepancies continue to arise which not only jeopardize the management of the program, but also the material condition of the diesels. The following is a list of frequently observed discrepancies:

- Routine/monthly inventories of chemicals were not conducted.
- Samples were not taken within 24 hours following the addition of water or chemicals.
- Sources of added water were not recorded and conductivity tests were not conducted.
- Jacket Water was dumped and flushed with no reason recorded.
- Water and chemicals were added without running the engine to circulate jacket water prior to obtaining AWA/ACA samples.
- Negative monthly trends in chlorides and nitrites were not addressed until tests fell out of limits.
- Out of parameter readings were not brought to the Engineer Officer's attention.

MANAGEMENT

AUTOMATED DIESEL ENGINE TREND ANALYSIS

By LT John M. Kubera, LANTFLT PEB

During 1997, eight percent of LANTFLT ADETA Programs were assessed as "Not Effective" (it was 28 percent in 1996). While the routine requirements of PMS based on engine hours and the ease of the computer based data base have contributed to better management of the program, a few common discrepancies remained:

- Trends were not conducted within periodicity.
- Lube Oil consumption was not tracked between trends.
- JOAP results were not tracked in the Material History.
- Trend and Inspection dates/results were not recorded in Material History.
- Operating Logs routinely did not match the parameters recorded during the trend.
- Diesel Inspection results and RBO corrections were not maintained.

MANAGEMENT

LEGAL RECORDS

By LCDR Scott Somers, LANTFLT PEB

During 1997, 29 percent of LANTFLT Legal Records Programs were assessed as "Not Effective" (it was 23 percent in 1996). Common discrepancies making programs not effective are listed below:

- Insufficient information to reconstruct significant events.
- A lack of continuity between log entries made among watchstanders and supervisors. This includes the types of entries made as well as the "mechanics" of the entries as required by the references and/or Engineer Officer Standing Orders.
- Errors made in the log were not properly corrected.
- The Engineering Bell Log was not correctly maintained when used, or was not used when required.
- There was missing or incorrect information on the Engineering Log cover sheet.
- There were missing signatures.
- There was a lack of meaningful supervisory review.

The Legal Records program requires supervisors to make the time and effort to train and mentor watchstanders.

MANAGEMENT

OPERATING RECORDS

By LCDR Scott Somers, LANTFLT PEB

During 1997, 21 percent of LANTFLT Operating Records Programs were assessed as "Not Effective" (it was 11 percent in 1996). Common discrepancies making programs not effective are listed below:

- Out of parameter equipment readings were not identified and circled in red.
- Either no remarks or technically incorrect remarks were made for out of parameter equipment readings.
- Corrective action(s) were either not taken or were not taken in a timely manner.
- General Quarters, or other special evolutions were annotated as the reason equipment readings were not taken.
- Errors made on the logs were not properly corrected.
- Logs had incorrect maximum and/or minimum equipment parameters.
- If installed, ICAS was not effectively used.
- There was a lack of meaningful supervisory review.

While each deficiency itself may not appear detrimental, several combined deficiencies or a long term trend in any one deficiency could render the program not effective. Using the appropriate references in tandem with well-thought out Engineer Officer's Standing Orders and watchstander training by supervisors, can turn a not effective program into a working, useful management tool.

MANAGEMENT

BEARING RECORDS

By LCDR Ken Frack, LANTFLT PEB

During 1997, 16 percent of LANTFLT Bearing Records Programs were assessed as "Not Effective" (it was 15 percent in 1996). Common discrepancies making programs not effective are listed below:

- Installed bearing clearances were not available. Bearing depth constants are useless if the installed clearances are not available. This is especially true in light of the latest revision to NSTM 244 (rev 5), which emphasizes bearing clearance rather than bearing wear as the main criterion for bearing condition assessment. This new revision provides guidance for obtaining bearing clearances on already assembled bearings (note that "rolling" a bearing is **not** required).
- Depth constants were suspect or were not established. Periodic depth micrometer readings are useless for determining bearing clearance if the depth constants are suspect or unknown. NSTM 244 describes how to establish or verify constants on already assembled bearings (note that "rolling" a bearing is **not** required).
- Bearing clearances were not recognized as out of specification. This is normally due to improper calculation of bearing clearance (BC) using the original depth constant (DC), the latest micrometer reading (MR), and the installed clearance (IC). It is very common for ships to subtract bearing wear rather than add bearing wear to the installed clearance. Supervisors need to pay close attention to the use of the formula from NSTM 244:
  BC = IC + W, where W = MR - DC.
- Periodic PMS checks were out of periodicity or situational checks were not performed. In addition to the ship's force PMS checks (usually under MIP 2400), there are some "R" checks (performed by a "Performance Monitoring Team," usually under MIP 2441) associated with maintenance availabilities and deployments. The requirements, as well as the specific MIPs, vary by ship class.
- Permanent records were not maintained for all required equipment. Permanent bearing records must be maintained on all bearings that require periodic measurement (without complete disassembly) by ship's force in accordance with PMS. All ships should maintain records on line shaft bearings and main thrust bearings. Ships that periodically measure other turbine bearings should maintain permanent records for those bearings. These usually include journal and thrust bearings on SSTGs and HP/LP turbines, and thrust bearings on auxiliary turbines and SSGTGs. Bearing clearances that can only be measured by completely

disassembling the bearings (such as MFP journal bearings) do not need to be included in the bearing records program; however, those clearances are still required to be maintained in the machinery history file for that piece of equipment. Diesel engine bearing records should be maintained in the ADETA notebook and material history file.

- Lack of supervisory and review. All of the above discrepancies are easily identifiable by knowledgeable supervisors who critically review the logs.

The common thread of "Not Effective" assessments has been an inability to determine if bearing clearances are satisfactory. If you do not understand the requirements of the program after reading the applicable references, please contact either ETG or PEB.

MANAGEMENT

QUALITY ASSURANCE

By LCDR Carl Weicksel, LANTFLT PEB

Refs: (a) CLF/CPFINST 4790.3, VOL 5
(b) CNSL msg DTG 111815Z SEP 96
(c) CNSL msg DTG 181706Z DEC 96
(d) CNSL msg DTG 162252Z JAN 97

During 1997, 40 percent of LANTFLT Quality Assurance Programs were assessed as "Not Effective" (it was 33 percent in 1996). Common discrepancies making programs not effective are listed below:

- QA program information from departments outside of Engineering was not provided for review.
- QA training was not identified in the departmental Training Matrix.
- No formal QA training program was established.
- QA training was not conducted or attendance was poor.
- Weak deckplate knowledge of the tenets of the program.
- Topics outlined in reference (a) were not incorporated into Lesson Training Guides.
- The QAO had not attended formal training.
- A Job Skill Training program was not implemented.
- Qualification and/or maintenance of qualification examinations were not administered.
- Designated QA personnel were not qualified or there was not a sufficient number of QA personnel on board.
- Departmental Training and Qualification records did not exist or did not contain the information outlined in reference (a).
- There was no plan for maintenance of qualification for QA personnel.
- References (b) through (d) were not placed in front of reference (a).
- ISIC audits had not been conducted or ships had not responded to discrepancies identified during an ISIC audit.
- QA surveillances were not conducted, or were not conducted IAW reference (a).
- Formal Work Procedures were not prepared when required, or were not prepared IAW reference (a).
- A Departure From Specifications was not requested when required.
- A Tech Librarian not assigned.
- A Tech Library did not exist or the space designated as the Tech Library did not limit access.
- There was no established plan to account for Tech Manuals or to ensure Tech Manuals were updated.
- The ship did not have the capability to "down load" Tech Manual changes provided on CD ROM.
- Incorrect material was used during equipment repair.
- Unidentified and inter-mixed parts and fasteners were found in storage bins.
- Special tools were not calibrated.

MATERIAL

THE WEAK LINK

By CAPT W. J. Laz, LANTFLT PEB

The material condition presented by ships to the Board has been the weak link in the process. It is the primary reason for Not Ready and Ready But CARTs. Also, we are now conducting our second two day ECERT. The first day was completing previous not effective checks and doing some required checks for the first

observed time. CDR Miller's article in "The Process" section provides further amplification. However, ONE item can improve a ship's opportunity for success immensely. Do a set of rigorous observed hot checks prior to CART. You will find problems and fix them in a controlled manner rather than under the ISIC spotlight at CART.

MATERIAL

DETROIT SWITCH CALIBRATION

By LT Richard Frey, LANTFLT PEB

The Board has seen ships performing and documenting detroit switch calibration in various manners. The terms "calibration," "testing," "verifying," "adjusting," and "setting" are considered to be the same maintenance action for pressure and temperature switches.

All detroit switch calibration is covered by PMS. Some systems have specific MRCs for testing and setting their associated detroit switches. Specific examples include:

- LPAC: MRC 5515 Q-1, Test low oil pressure shutdown switch, injection water pressure switch and timed-to-close relay, and high temperature shutdown circuit.
- Propulsion Shafting: MRC 2400 S-4, Inspect operation of low pressure seawater cooling alarm switch and high pressure seawater cooling alarm switch.
- SSTG: MRC E-13 Q-2, Test operation of low oil pressure alarm.

All other detroit switches that are not addressed by a specific MRC are covered under MIP 9802.

With the exception of PCs and MHCs, all ships have the equipment and capabilities to perform calibration of detroit switches. (PCs and MHCs were not issued calibration equipment.) When the PMS has been completed, a METCAL sticker should be placed on the switch. The calibration due date that should be written on the METCAL sticker depends on the periodicity of the associated MRC.

TRAINING

THE .8B

By CAPT W. J. Laz, LANTFLT PEB

The Engineering Department Training Instruction, CINCLANTFLTINST 3540.8 series, has been rewritten and is at the CINC's for signature. The .8B incorporates the Drill Refinement process. Additionally, COMNAVSURFPAC has paid a contractor to computerize documentation on a COMPASS compatible program. Hopefully that will be out mid-year. Most important, the instruction has been "human engineered" to make it easier to use. It is in a format similar to the EDORM and .9 instruction.

TRAINING

EOOW ORAL BOARD TESTS

By LCDR Carl Weicksel, LANTFLT PEB

As many of you know, Senior Assessors have been administering a written test as part of the LOA or CART II EOOW Oral Board. PEB created this test using questions taken from the Fireman Training Manual (NAVEDTRA 12001 Feb 92) to assess the level of knowledge of EOOWs and senior Engineering Department personnel in engineering theory, fundamentals and systems. Five different test banks have been used since the test was implemented in June of 1996. Each twenty five question test is divided into five test areas: I - Engineering Physics; II - Instruments; III - Pumps, Valves, Piping; IV - Propulsion Systems; and V - Electricity. A review of test results have revealed several interesting statistic and trends:

1. Average test score by ship type and test sections (overall and by test area):

	Diesel	Steam	GT
Overall	46.6%	**52.7%**	48.8%
I	52.2%	**59.5%**	51.4%
II	45%	**61%**	49.1%
III	56%	**61.2%**	51.4%
IV	34.7%	**41%**	**41%**
V	45.4%	41%	**51%**

2. Score comparison by demographic group (overall and by test area):

	03 & Above	CW02 -03	E7-E9	E6 & Below
Overall	**59.7%**	47.1%	51.1%	44.3%
I	**71.4%**	52.5%	45%	55.5%
II	54.3%	40.4%	**58.6%**	47.3%
III	**62.2%**	47.8%	59.7%	45.7%
IV	**54**%	45%	41%	31.2%
V	**56.6%**	49.7%	51%	41.7%

3. Here are the questions that are most frequently answered incorrectly:

- Engineering Physics: At sea level, the average atmospheric pressure is _____ inches of mercury. (29.92)
- Instruments: A Manometer is perhaps the most accurate and simplest instrument, it is used for measuring vacuum or _____ pressure. (differential)
- Pumps, Valves & Piping: List the valve handwheel color codes for the following systems: Hydraulic, Nitrogen, HP air, AFFF foam discharge. (orange, light gray, dark gray, striped red/green)
- Propulsion systems: State the two general bearing classifications. (sliding surface, rolling contact)
- Electricity: The failure of a generator in parallel with another generator is best indicated by observing _____. (kilowatt load)

OPERATIONS

DRILL SIMULATIONS

By CAPT W. J. Laz, LANTFLT PEB

Still the most common comment seen on both CO and Engineer Officer process questionnaires is, "Why isn't there a standard simulations list?" There is a "Common Drill Simulations" section on the ETG Electronic Bulletin Board. This list is frequently updated. ETG can get you a had copy if you can't pull it off the bulletin board.

FIREFIGHTING

FLUSHING VARI NOZZLES

By LCDR Carl Weicksel, LANTFLT PEB

The most commonly missed firefighting question: "How do you properly flush the vari-nozzle?" According to NSTM 555, the Akron vari-nozzle is flushed by rotating the pattern adjustment shroud past the wide fog setting until it stops at the flush marking. The Elkhart vari-nozzle is flushed by rotating the pattern adjustment shroud to the wide fog pattern, unlatching the flush ring by depressing the spring loaded thumb latch, and rotating the flush ring to the flush position.

THE PROCESS

ASSESSMENT SCHEDULING

By LCDR Robert Benjamin, LANTFLT PEB Office Manager

Many Engineer Officers call to ask if the Board knows where they are in the cycle, and they want to know how PEB could possibly come and assess them in their present condition. First, we do not schedule engineering assessments, that is the ISIC's responsibility. Second, if there is a major problem that will preclude conducting the assessment as scheduled, you need to discuss this with your ISIC at the earliest possible date. We have on numerous occasions had the schedulers at CATGL call an ISIC to ask what is happening with a certain ship only to find that this is the first the ISIC has heard of the problem. We will gladly talk with your ISIC representative and provide alternative dates, but without a message to COMAFLOATRAGRULANT NORFOLK VA requesting a change, your assessment is going to happen as scheduled in the scheduling message. We will not change our schedule until we have a message from CATGL approving the change. We endeavor to serve the fleet as best as we can, but keep in mind that moving an assessment may very well impact other ship assessments. Careful planning and a thorough

understanding of the 3450.9 can often avoid last minute schedule changes.

LOAs, if at all possible, should be scheduled from Tuesday through Thursday. PCDs and other contractor work may impact this, but if it is scheduled this way early on we are more often than not able to conduct the assessment as scheduled. As a rule of thumb, CART IIs for PEB begin on Monday afternoons. We must be done impacting the electrical plant by noon on Wednesday to allow the Combat Systems Team and other training teams to conduct their scenarios. We routinely conduct ECERTs on Thursdays, as this opens the first part of the week to CART II assessments. This also ensures that the ship will return to port no later than Friday afternoon.

These guidelines are the Board's entering arguments at the quarterly scheduling conference. While changes are sometimes necessary, we attempt to follow these guidelines as much as possible. It must also be remembered that we only have three teams. It is much easier to get the dates you prefer if your assessment is scheduled at the quarterly scheduling conference. Inputs received after the scheduling conference and scheduling conflicts with no ISIC representation are scheduled on a first come first serve basis.

ISIC LOAs are an excellent point to get the PEB involved. We encourage ISICs to request our assistance, whether it is for one team member or an entire team. If the schedule permits, we will assign your CART II/ECERT Project Officer to the ISIC LOA. While team members may change, we are committed to providing as much consistency as possible in assigning Project Officers. This gives the ship a stable point of contact, it also provides the Senior Assessor a set of eyes that has followed the ship through the process and can provide valuable input concerning trends and improvements.

THE PROCESS

CART II PREPARATIONS AND ORCHESTRATION

By CDR J. R. Miller, LANTFLT PEB

During the engineering portion of recent CART IIs there has been a noticeable decline in preparations for, and the ability of, ship's force to orchestrate that portion of the assessment. Examples of lack of ship's force preparation include the necessity of cleaning up both combustible and flammable liquids in the bilges, large numbers of oil soaked flange shields and no self-audit of management programs prior to the start of the assessment. In terms of orchestration ships have been poorly organizing and executing material checks.

The material standards required are clearly spelled out in NSTMs, EOSS, PMS, Technical Manuals, etc. and are summarized in CINCLANTFLTINST 3540.9. Flammable leaks (fuel) are not acceptable, and combustible leaks (lube oil and hydraulic fluid) are only acceptable if they are capable of being kept wiped up by ship's force. If, at assessment start, there is enough oil in bilges and on equipment to constitute a hazard in itself, and prevent the Board from seeing where the leak might be coming from (or if there still is a leak), we lose valuable time and tire out your sailors cleaning, when we should be getting on with the assessment. Flange shields that are torn, oil soaked or incorrectly installed can also constitute a real time waster. Oil soaked flange shields usually mean leaking flanges, again time is lost during the assessment fixing these. Lastly, an audit of management programs the week before the CART can often prevent programs from being found "not-effective" due to missing materials, signatures, etc. "An ounce of prevention..."

Poor organization and orchestration of material checks can slow the assessment down considerably and jeopardize the ability to complete it on time or, just as bad, working your crew late into Monday and Tuesday evenings. Assuming a start on Monday at 1300, material checks should notionally be completed by noon on Tuesday, with the first drill set that afternoon. Often, space assessors are left standing around

waiting while the engineering management team attempts to find a written procedure, a qualified tech or a piece of test equipment necessary to complete the check. Delays are also caused by the "we can only do one thing at a time" mentality. The list of checks is provided to the ship before the start of the assessment, and is also listed in CINCLANTFLTINST 3540.9. Ensuring that each check has a current procedure (EOP, PMS, Applicable Tech Directive, or Ship's Procedure) and that the space personnel are familiar with that procedure goes a long way toward smoothing the process. Sitting down and organizing a coherent method of conducting these checks will help coordinate requirements for "experts" or unique test equipment. A warning here, if you make your plan inflexible it will collapse under changing conditions (your assigned tech goes on emergency leave, or a piece of equipment unexepectantly doesn't work right). The most successful ships:

- Train assigned space personnel to conduct all the checks in their assigned spaces.
- Provide them with validated and approved procedures.
- Assign a material checks coordinator to monitor progress, coordinate use of any expert techs and unique test equipment, and assist the engineering management team in conducting any required repairs.

The assessment Project Officer from the PEB is available at any time to answer any questions about the process and how it will be conducted. The assigned Senior Assessors are available to the ISICs and the ships' Commanding Officers to review any issues.

THE PROCESS

PEB EMBARKATION FOR ECERT

By CAPT D. A. Denis, LANTFLT PEB

There is no requirement for PEB to start ECERTs with the ship already underway. We would be happy to get underway from the pier with you. While there are some advantages of having us embark by helo or boat, unforeseen weather changes and/or mechanical problems have delayed the commencement of numerous ECERTs. If you do decide to embark us underway, ensure that you have a good back-up plan. This is especially important during the winter months when there are fewer hours of daylight, and when the weather is more likely to limit flight/boat operations.

THE PROCESS

MID-CYCLE ASSESSMENTS (MCA)

By CAPT W. J. Laz, LANTFLT PEB

We have completed a review of the last year's MCA reports and trends have been as expected except in one area, drills. The evaluated performances of drills has been universally outstanding. However, the drill sets were not demanding and the complexity has been less than the basic phase. Easy drills neither provide training value for an experienced ship, nor provide any assessment value to help the ship get better. The MCA is the perfect opportunity to run those challenging drill sets that are always skipped because it is never "the right time." A 2.9 on a hard drill set is of a lot more value than a 4.0 on a simplistic set.

THE PROCESS

NEW PHONE NUMBERS

The PEB office phone numbers have changed (again). The 836 exchange is now used for commercial as well as DSN calls. The area code is (757)for commercial calls.

CODE	NAME	PHONE
N020/N74	CAPT William J. Laz	836-0123/24
N74A	CAPT David A. Denis	836-0128
N74OM	LCDR Robert P. Benjamin	836-0120/21
	FAX	836-5319
N74S1	Secretary	836-0119
N74S2	YNC Jose A. Santiago	836-0122
N741	CDR Francis J. Greco	836-0129
N742	CDR Thomas D. Holman	836-0130
N743	CDR James R. Miller	836-0125
N7410	LCDR William B. Allen	836-0137
N7411	LT James P. Gompper	836-0540
N7412	LCDR Grady Sass	836-0541
N7413	LCDR William E. Kordyjak	836-0133
N7414	LCDR Kenneth L. Frack	836-0539
N7415	LT Richard A. Frey	836-0542
N7420	LCDR James F. Hughes	836-0135
N7421	LCDR Victor V. Cooper	836-0136
N7422	LCDR Scott C. Somers	836-0134
N7423	LCDR Glenn A. Miller	836-0132
N7431	LT Daniel Avenancio	836-0538
N7432	LT Samuel W. Overmyer	836-0537
N7433	LCDR Robert P. Benjamin	836-0536
N7434	LCDR Chris J. Bushnell	836-0138
N7435	LT John M. Kubera	836-0535
N7436	LCDR Carl B. Weicksel	836-0132